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CCSI Policy Paper

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## Key Points

- 1 The industry was structured and grew with the main objective of providing steel to the domestic and regional markets. As the steel market became more globalized and the RSA had to compete with imports, it became evident that the industry was not competitive enough.
- 2 While the state owned steel company Iscor was privatized in 1989, there has been a reversal of this policy stance since the mid-1990's towards increased nationalization.
- 3 Despite the creation of the New Growth Path (NGP) as a framework for economic policy and job creation, the Government has had no success in fostering downstream beneficiation through legislative initiatives.

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## Downstream Beneficiation Case Study: the RSA

### Introduction

The Republic of South Africa (the RSA) was selected as a beneficiation case study due to the presence of a long-standing iron and steel industry that dates back to the beginning of the twentieth century. Historically, the RSA has large domestic reserves of thermal coal, iron ore refractories, and dolomite and limestone, which are the basic inputs for the production of iron and steel. Furthermore, over the past two decades the Government has actively pursued policies aimed at fostering downstream activities, such as iron ore beneficiation,

For the purpose of this case study, a historical overview of the the RSA iron and steel industry is given, beginning in 1910 and continuing to the present. This overview will examine the industry with a focus on Government policies and other factors that fostered downstream beneficiation in the RSA during this time-period. Specific Government policies will be identified and their respective effects will be highlighted when possible.

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## Iron and Steel Industry 1910-1930

Commercial iron ore extraction and beneficiation in the RSA coincided with the establishment of the modern iron and steel industry during the period spanning from 1910 to 1925. From 1910 to 1916, three steel plants were established in the Transvaal province.<sup>i</sup> From very early on, governmental intervention was a factor in the development of the South African iron and steel industry. The Union Steel Company of South Africa (Usco) was founded in 1911, with the aim of producing steel from scrap iron salvaged from the railways. The Government granted Usco the preferential right to purchase scrap iron from the railroad at a set price for 16 years under the Scrap Iron Act 1910 (See **Appendix 1**). The agreement also included a guaranteed purchase for all finished materials, if the Government deemed them of sufficient quality.<sup>ii</sup> This agreement, between Usco and the Government resulted in the construction of the plant on the Vaal River, which was commissioned in September of 1913. Initially, Usco built a 10-ton open-hearth furnace in order to produce fencing posts.<sup>iii</sup> During this time-period, a number of small-scale private steelmakers also sprang up, including: Dunswart Iron & Steel Works Ltd. (1911), Transvaal Blast Furnace Co. Ltd. (1916), Pretoria Iron Works Ltd. (1917), and Newcastle Iron & Steel Works Co. Ltd (1918).

The period of 1926-1930 saw both an expansion of the Transvaal steel industry and the establishment of pig-iron manufacture. Usco commissioned two plants in 1926, located in Newcastle and Klip respectively. The Government also adapted an import substitution industrial policy, which protected the iron and steel industry. This strategy was solidified through the passing of the 1925 Tariff Act (see **Appendix 1**), which established tariffs ranging from 20 to 25% on imports.<sup>iv</sup> This protective tariff, coupled with the natural protection inherent to South Africa's geographic distance from steel producing countries along with the growing domestic demand, acted to catalyze the growth of the iron and steel industry.

The South African Iron and Steel Corporation (Iscor) was established in 1928 as a result of the passage of The Iron and Steel Industry Act No. 11 (See **Appendix 1**). This bill aimed to address the issue of scarce private capital for investment available for the development of the iron and steel industry by establishing a statutory parastatal organization to provide not only inexpensive steel, by replacing costly imports, but to create job opportunities.<sup>v</sup> The act made available to the Iscor Board a total capital sum of US\$ 839 million (in 2015 prices). Iscor was established as a Government owned company in 1928 and used the capital allocated by the Government to build its Pretoria integrated steel plant, which was commissioned 1934. The site for Iscor's plant in Pretoria was selected due to its close proximity to large deposits of iron ore and coking coal and being close to the principal market for its output.<sup>vi</sup> The region had already begun to industrialize prior to the establishment of the Pretoria plant as a result of the expansion of the gold mining industry in the Transvaal, and it was the mining industry that created the market for Pretoria's steel. The Pretoria plant was far more efficient than Usco's Newcastle plant, resulting in the shuttering of the Newcastle blast furnace that same year. The next major boost to the iron and steel industry came from increased demand for steel from the gold mining sector due to a gold boom beginning in the 1930's.

## Iron and Steel Industry 1930-1950

Expansion of gold mining activities in the 1930's led to a great increase in demand for iron and steel, with domestic steel consumption multiplying threefold from 1932 to 1937. The gold mining sector of the Transvaal relied on the iron and steel industry for primary and semi-manufactured products

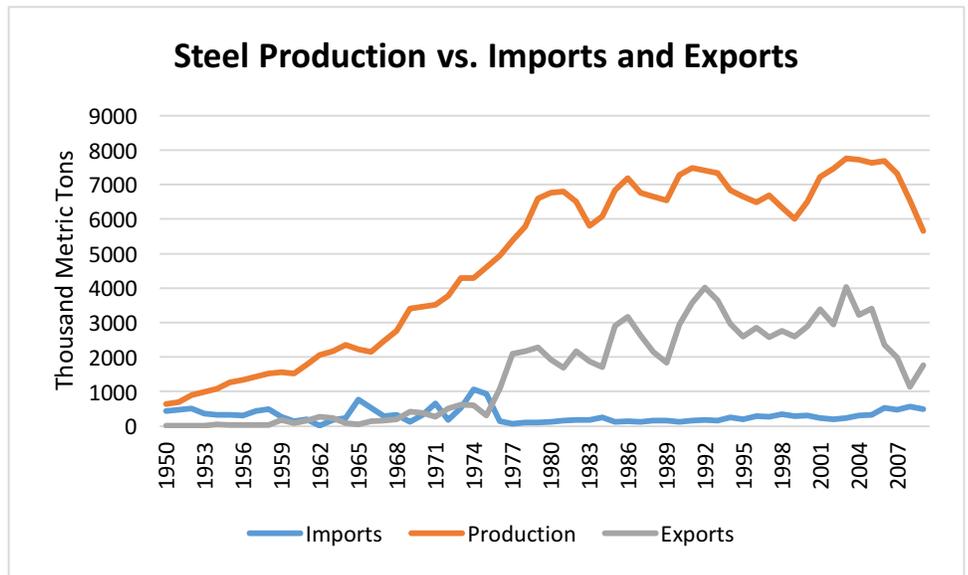
(such as cast iron bar, iron fasteners, piping, rails, ties, sleepers, steel sheets, structural steel, wire, fencing, grates, and posts) as well as finished manufactured products (such as machinery spares, hand tools, rock drills, buckets, and shaft rollers).<sup>vii</sup> By 1937, the RSA produced one-third of the ~870,000 tons of iron and steel consumed domestically, with Iscor accounting for 92% of this production.<sup>viii</sup> This was indicative of Iscor's role over the next few decades during which it remained the dominant RSA producer. Also in 1937, the African Metals Corporation (Amcor) was

formed as a subsidiary of Iscor after the discovery of iron ore at Thabazimbi. The objective was for Amcor to take control of the defunct Newcastle blast furnace, which was brought back online by Amcor in 1938, and use ore from the newly discovered deposit at Thabazimbi as feedstock for pig-iron production.

By 1940, the RSA was producing three-fifths of its domestic demand for iron and steel. There is no record of iron or steel exports prior to 1950. The sector was characterized by significant growth, being stimulated by war-time demand for steel

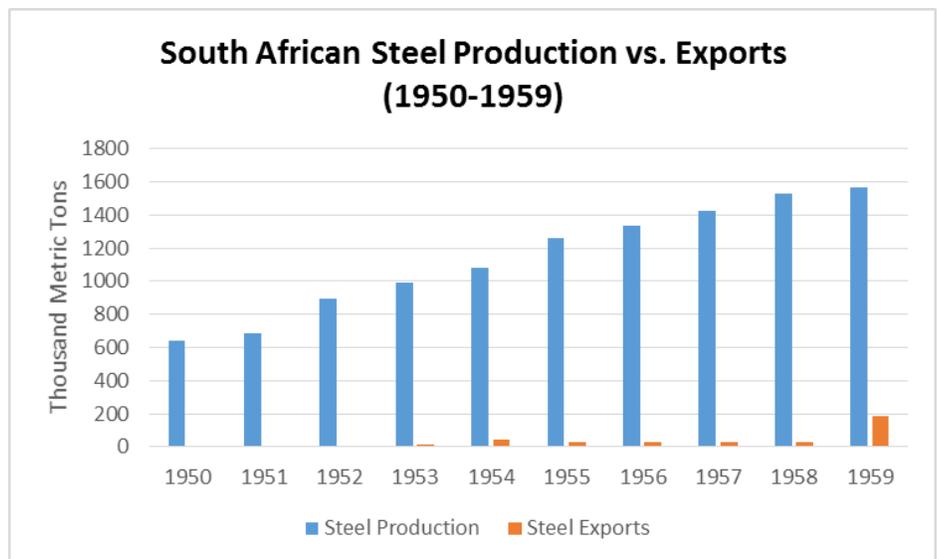
plate required for ship repairs, growth of local manufacturing industries and post-war domestic construction. In response to this wartime demand, Iscor decided to build a new integrated steel plant in Vereeniging. The company began by building a plate rolling mill, sited in such a manner that it could later form part of a large integrated steelworks. The construction of the plate mill was commissioned and in 1943 and completed the same year.<sup>ix</sup> The doubling of total output during this

**Graph 1.**



This graph was created using data sourced from the SA Iron and Steel Institute

**Graph 2.**



This graph was created using data sourced from the SA Iron and Steel Institute

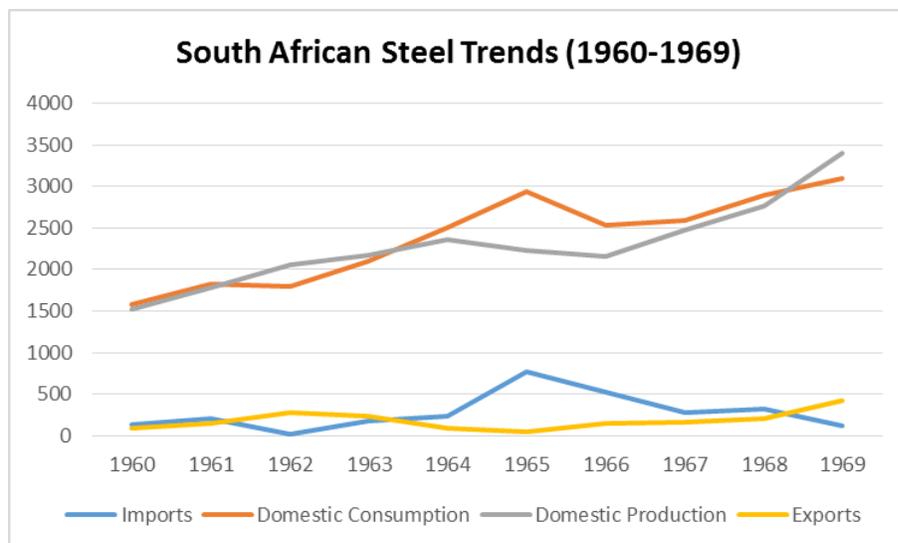
period was achieved through implementing standardized mass-production processes and was characterized by the development of ferroalloy and specialty steel production. Shortly after the war, Iscor decided to move forward on its plans to build a fully integrated steel works at Vanderbijlpark, with construction beginning on this project in 1947.<sup>x</sup> By 1949, the Pretoria plant was responsible for producing ~450,000 metric tons per annum, equivalent to nearly three quarters of all the RSA steel output (~600,000 tons in 1950) as shown in **Graph 1** above.<sup>xi</sup> This is indicative of the dominant role that Iscor played in terms of the overall production of the South African iron and steel industry.

## Iron and Steel Industry 1950-1980

1950 marked an important milestone in the evolution of the RSA iron and steel industry; it was the first year with exports of steel from the country. While exports accounted for only a little over 1% of total production in 1950, they had grown to nearly 12% of total production by 1959, as shown in **Graph 2**. The 1950's continued to see growth of the the RSA iron and steel industry with Iscor expanding its operations further. In October of 1952, Iscor's fully integrated steelworks at Vanderbijlpark officially opened, with several of the new production units being commissioned in 1953. This was followed by major expansion projects in 1956 and in 1960.<sup>xii</sup>

From 1964 to 1969, Iscor expanded its steel production in Vanderbijlpark through the commencement of a second development phase. This expansion was characterized by the addition of larger steel rolling extensions, while older production units were modernized to supply higher quality and value-added products, such as electrolytic tinplate, for the canning and beverage industries. In addition, Newcastle and Pretoria entered into downstream joint ventures with steel processors. Another important development was the establishment of the Highveld Development Company in 1964, which embarked on a program to build an integrated iron and steel works near Witbank. This was achieved with the backing of Anglo American, which financed the building of the Highveld plant to produce steel as a by-product of vanadium. The establishment and entrance of Highveld into the market is significant because it marks the first point that Iscor had to face competition from a privately owned domestic producer of steel. The industry became further diversified in the mid-1960's when Barlow Rand entered into the steel industry with the establishment of its Middleburg Steel and Alloys plant. The addition of newly established steel makers and the expansion of production capacity during this period resulted in the doubling of steel output from 1960-1969, as shown in **Graph 3** above.

**Graph 3.**



This graph was created using data sourced from the SA Iron and Steel Institute

Much like the 1960's, the 1970's were marked by expansion of production by Iscor. In 1971, Iscor began erecting integrated steel works and long products mill at Newcastle in an effort to expand its production capacity. Another development came in 1975, with the Middleburg works being converted to the production of stainless steel. The continued expansion of production capacity by Iscor resulted in a significant increase in steel production from 1970 to 1980, as depicted in **Graph 4**. What is also notable is that this increase in production served in a large part to produce steel destined for export, as there is a strong correlation between the increase in production and exports. Probably the most significant development during the 1970's, with regard to the iron and steel industry, was the construction of rail infrastructure, which allowed the RSA to transport iron ore from the inlands to the ports for export purposes. The Sishen-Saldhana rail corridor, for example, led to Iscor becoming a significant global exporter of iron ore.

Following the 1970's, Iscor continued to dominate the South African iron ore to steel value chain for many years, entering into joint ventures with private partners in specific sub-sectors until it was privatized in the late 1980s.

### Privatization of Iscor

The economic sanctions imposed on the RSA in 1985 due to the ongoing policy of apartheid had a huge impact on the South African economy and iron and steel sector. The sanctions, imposed by Europe, Japan, and the USA, not only cut off foreign direct investment (FDI) and loans, but also resulted in severe losses due to restrictions on exports, most significantly on coal, iron, steel, and fruit. Economists have estimated that from 1985 to 1990, the sanctions resulted in \$US 14 billion worth of losses in the form of loans and FDI, while restricted exports were estimated to have resulted in losses of \$US 3.6 billion.<sup>xiii</sup> The resulting economic turmoil created political pressure for the National party to shrink the public sector and begin privatizing state assets. By the late 1980's, there was a significant movement toward the privatization of state owned enterprises in the RSA. This, in conjunction with the economic impact of the sanctions and a general sentiment that both political power and economic control had become overly centralized in the Government resulting in a bloated, mismanaged public sector, led the National party towards a policy of privatization. In 1988, a new policy was presented that foresaw the privatization of state assets, including the electricity company, postal company, public transit, Iscor, and various extractive industry companies. In 1989, the RSA privatized Iscor through a listing on the Johannesburg Stock Exchange.

#### Iron Ore

With regard to iron ore production and beneficiation, the RSA has an advantage over other ore producers due to the fact that the majority of the domestic iron ore deposits produce both high quality lump and high-grade sinter fines. The RSA produces nearly 5% of global exports and is ranked 7<sup>th</sup> in the world among producers of iron ore, making it a significant world player.<sup>1</sup> By 2013, South Africa's iron ore production accounted for 73% of Africa's total production and for 72% of Africa's total exports of iron ore. The lack of infrastructure is the largest constraint for the expansion of iron-ore production. In 2014 the the RSA railway capacity for iron-ore was 60 million metric tons per annum. Transnet, the national railway company, plans to raise capacity on the line to 105 million metric tons per annum. The upgrades are part of Transnet's 210 billion-rand (US\$ 19.9 billion) plan to revamp its rail lines after decades of underinvestment.<sup>1</sup>

The valuation of the sale of Iscor shares was around US\$ 3.76 billion, which injected much needed funds into the Government coffers. By 1990, Iscor shareholders were increasingly dominated by investment institutions, with the Investment Development Corporation (IDC) being the single largest

shareholder with a 16% stake. While the National party was pushing for privatization, many viewed the actions as a vehicle that the white Government was using to transfer national assets into the hands of a few wealthy whites. The increasingly influential African National Congress (ANC) party believed that the best course of action for the betterment of Africans was the exact opposite of this policy of privatization; the ANC was pushing for greater nationalization in all sectors. With the ANC coming to power in 1994, the plans to privatize state assets further were stopped, with Iscor being one of the few Government assets to be fully privatized. The Governmental policy shift, led by the ANC, led towards greater Government intervention in the mining sectors, with the objective of fostering increased beneficiation and downstream activities that would result in job creation and industrial growth.

### **Contemporary Iron and Steel Industry**

Shortly after privatization in 1989, Iscor began to streamline its operations through the shuttering of inefficient facilities and with initial workforce reductions amounting to over 2000 employees. The period of 1989 to 1996 was a relatively prosperous time for Iscor. Iscor further reduced its workforce and increased production capacity. During this time Iscor continued to enjoy tariff protection, which resulted in domestic market conditions where steel sold for a premium of approximately 100% of the world prices.<sup>xiv</sup> Growing profitability, combined with a strong world stainless steel market, led Iscor to solidify plans in 1994 to convert the Pretoria steel mill to stainless steel production. In addition to the conversion of the Pretoria mill to stainless production, Iscor and IDC invested in a state-of-the-art steel plant and continuous thin film casting facility at Saldhana to be commissioned in 1999. However, by 1997 the world stainless steel market collapsed and, despite having investing upwards of \$US 280 million in the conversion to stainless production, Iscor converted Pretoria back to producing carbon steel. In 1998 Pretoria was fully decommissioned due to its obsolete and inefficient carbon steel production technology. This decision was driven by a downturn in the world steel market that began in 1997, with Iscor reporting substantial losses in February of that year. With the shuttering of the Pretoria plant, Iscor was able to realize profitability by early 1998, but began posting losses again in 1999. This was as a result of a drop in demand from the Far East, following the financial crisis, as well as dumping of surplus production by Japan, Korea, and the Commonwealth of Independent States (CIS).<sup>xv</sup> By mid-1999, Iscor announced that it was looking for an international partner for its steel operations.<sup>xvi</sup>

The new millennium saw the the RSA iron and steel industry undergo significant structural changes. In August of 2000, Iscor announced that it would be split into six separate business units in order to generate the maximum value for shareholders, and thus opened up the possibility for mergers and acquisitions. The six business units were designated as flat steel products, long steel products, coal, iron ore, heavy minerals, and base metals.<sup>xvii</sup> In early 2001, Iscor announced it would split the corporation into two independent steel and mining companies. A major force driving this restructuring was the fact that the 50/50 IDC joint venture at Saldhana was resulting in significant losses. Iscor's vertically integrated operations were unbundled in November 2001 in order to spin off the mining assets, which became known as Kumba Iron Ore (KIO). Included in the deal was an annual allotment of 6.25 million tons of Kumba's iron ore to be provided to Iscor for its steel production. By 2002, the steel market had rebounded and Iscor was again reporting healthy profits with its Saldhana steel mill finally gaining profitability. LNM Mittal took a controlling stake in Iscor in 2004. In 2005, KIO further unbundled itself, separating its coal mining and other mining assets into a separate company. Anglo American retained 66% of KIO, and 17% of the newly created coal company. Other shareholders in KIO include the IDC (14%) and minority shareholders accounting for a 20% holding.

A merger ensued with the assets of the new coal entity being agglomerated with the assets of Eyesizwe Coal, with the resulting entity being listed on the Johannesburg Stock Exchange in 2006 as Exxaro.<sup>xviii</sup>

All of the individual operations that comprised the former Iscor are still in existence, however all of the iron ore and steel production manufacturing facilities are now owned and controlled by transnational corporations head-quartered outside of the country. Anglo American, through KIO, has taken control of the Sishen iron ore mine, South Africa's best iron ore asset. Luxemburg-based ArcelorMittal Steel owns the steel-making assets, making Exxaro, which controls the former Iscor-owned coal assets, the sole former component of Iscor that is still under the control of South African institutional capital.

Along with the restructuring of the steel industry during the early 2000's came another predominant theme that resonated throughout the decade. The issue of unfair pricing of intermediary inputs by AcelorMittal, through the use **import price parity (IPP)** for its products destined for the domestic market, was a constant complaint. This reoccurring theme consistently made the headlines from 2002-2010, as both the the RSA Government and downstream industries expressed their discontent over the negative effects this was having on the mining and manufacturing sectors of the RSA. In the event the Government was to regulate the price at which domestic steel producers are able to sell steel in South Africa, this would, in all likelihood, discourage steel producers from maintaining their current production capacity. See the **IPP and Competitiveness** box for more details

### IPP and Competitiveness

The issue of uncompetitive pricing of intermediate inputs directly relates to the perceived detrimental effect that using import parity pricing (IPP) for the pricing of manufacturing inputs produced domestically has on downstream activities that rely on those inputs for production. In the case of South Africa, IPP is a pricing policy adopted by suppliers of a good for their sales to domestic customers, according to which price is set at the opportunity cost of a unit of an imported substitute good. As such, price is set equal to the world price converted into Rand, plus any transport, tariff, and other costs the customer would bear if importing.<sup>1</sup> What this means is that a price calculated using IPP is a notional price and does not necessarily reflect actual costs incurred by the supplier, while in reality a supplier's costs might be less than the IPP. This is the primary reason why customers are unhappy about being charged an IPP price. Conversely, an import parity price might be lower than the costs incurred by a domestic supplier, in which case customers might benefit from IPP if suppliers were constrained to price at or below IPP.<sup>1</sup> The bottom line is that IPP can serve as both a competitive constraint or a source of market power, making it challenging to devise a one size fits all policy instruments to address the negative effects that are associated with IPP. While IPP pricing is not as significant an issue in 2015 as in was 2009 when the NGP document was released, IPP still warrants attention.

Between 2003 and 2010, AcelorMittal was selling flat steel products on the domestic steel market at the IPP price. At the time, they controlled over 80% of this market in South Africa. They employed IPP pricing despite the fact that they had a comparative advantage over imported steel due to the fact that they were receiving iron ore from Kumba at cost plus 3%, which at the time was well below the world market rate. While the Kumba iron ore deal was nullified in 2010, AcelorMittal was able to make substantial profits between 2003-2010 at the expense of the domestic downstream industries, which relied upon the AcelorMittal's flat steel products as inputs for production. This practice of IPP was initially brought to light in 2002 when Harmony Gold Fields, a South African gold-mining company, lodged a complaint with the South African Competition Commission. Harmony claimed that Mittal was charging excessive prices for the flat steel that Harmony used in its mining activities.<sup>1</sup> In 2004, the Competition Commission dismissed the case, however Harmony appealed the decision and Mittal was found guilty of excessive pricing and levied a US\$ 100 million fine against the steel maker. Mittal appealed the decision and it was overturned in 2009; Mittal and Harmony subsequently came to a private settlement out of court.<sup>1</sup> It is important to note that the RSA had already passed the Competition Act of 1998 to specifically address issues related to price fixing, collusion, and monopolistic activities. Despite the fact that AcelorMittal's IPP pricing practices fell in direct violation of the Competition Act, it took several years for the Government to take action. Beyond addressing the inefficiencies that had arisen from the pricing practices, the NGP offered recommendations pertaining to other areas.

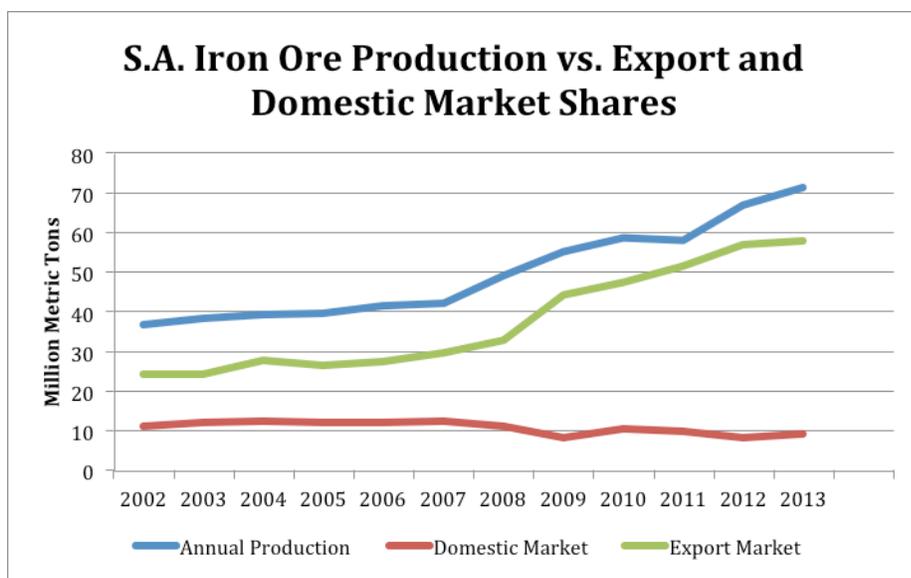
regarding this issue. The issue of IPP was addressed towards the end of the decade through concerted efforts by the Government to stamp out the practice in the beneficiation framework that the Government began to formulate in 2009.<sup>xix</sup>

While various forms of iron ore beneficiation have been occurring in the RSA since the beginning of the 20<sup>th</sup> century, the election of President Jacob Zuma in 2009 was marked by his call to action: to break with the prior two decades of economic policy and chart a new economic path forward. This idea was fomented in the form of the “New Growth Path” (NGP) released in 2011 by the newly formed Economic Development Department (EDD) with the intention as serving as the framework for economic policy and the driver of the country’s jobs strategy. Due to the significant role that mining plays in the RSA’s economy, the NGP focused on increased beneficiation across all sectors with the objective of creating jobs through downstream and resulting side stream activities. The NPG was viewed as a framework to address the constraints of beneficiation in South Africa, such as restricted access to raw materials and lack of critical infrastructure.

Specifically, the NGP suggested that a state-owned mining company should be established, which promotes beneficiation and greater utilization of the mineral resource base of the country for developmental purposes, including through a sovereign wealth fund. In addition, the NGP suggested that refocusing the beneficiation strategy to support further downstream activities, such as fabrication rather than only smelting and refining, which are both capital and energy intensive. Furthermore, NGP stressed the importance of stronger measures to address uncompetitive pricing of intermediate inputs, such as where appropriate, as well as export taxes on selected mineral products linked to clear industrial strategies.<sup>xx</sup> The NGP also pointed towards a review of the existing regulatory framework, including measures surrounding licensing with the potential for a newly established state-owned mining company (mentioned above) to support job creation, beneficiation, investment, and broad equity.

In addition to greater oversight over the issuance of mining licenses, the NGP identified the creation of a long-term plan for industrial development as of significant importance. The heart of this was a ten-year strategic plan addressed issues surrounding electricity generation, logistics, and human capital specialized for mining. A key component to this strategic plan is to identify the main potential for and blockages to stage 4 beneficiation (fabrication of metals into final goods) and develop measures to address them, including export taxes on metals where appropriate.<sup>xxi</sup> According to a study by KIO in 2011, even

**Graph 4.**



This graph was created using data sourced from the SA Iron and Steel Institute

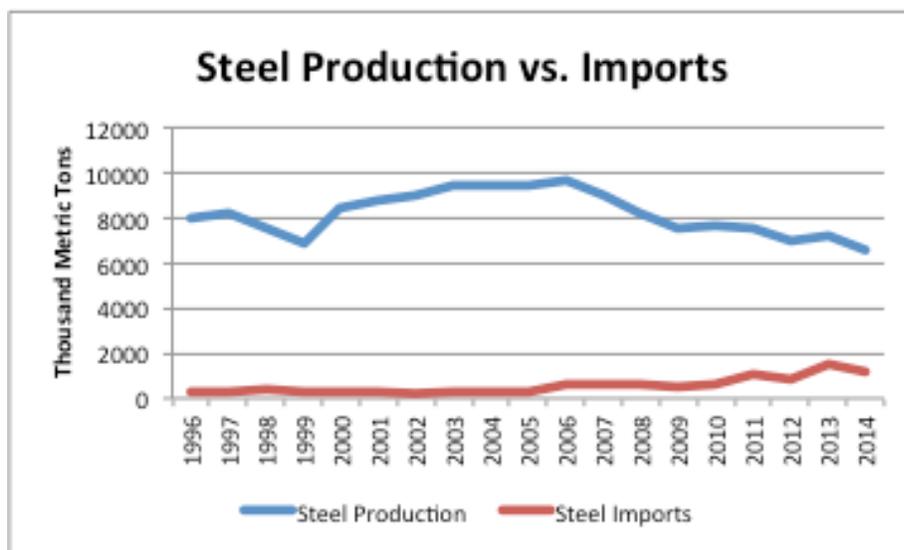
aggressive input cost subsidization/steel price control in South Africa would only create 1-3% of additional downstream steel demand. Furthermore, interventions to reduce domestic steel prices by 10-15% would only generate a 1-3% increase in downstream consumption of steel. Considering that current domestic consumption is only at 50% of production capacity, a 1-3% increase in consumption would not have much of a direct or indirect impact on employment numbers. Even if iron ore were supplied free to steel producers (with a concomitant lowering in the steel price), it would only yield a 0.7-1% cost benefit to downstream producers.<sup>xxii</sup> The Anglo KIO report suggests that the best option for creating both direct and indirect employment is the development of new iron ore mines and infrastructure in the Limpopo and Northern Cape provinces.

Another key tenant of the NGP was the creation of a specialized state owned mining company to serve as both a player and a referee. However, as of August 2015 the only established state owned mining company was African Exploration Mining and Finance Corporation (AEMFC). The AEMFC, a subsidiary of State-owned Central Energy Fund (CEF) group, was established in 1944 (but revived in 2007) to secure South Africa's energy supply, primarily through the mining and supply of coal for electricity generation. The AEMFC also envisions securing other key minerals for beneficiation in the energy and steel value chain, but has yet to make any inroads in this department.<sup>xxiii</sup> In August of 2014, the RSA Ministry of Mining announced the submissions of the State-owned Mining Company (Somco) Bill to Parliament. All of the coal rights currently in AEMFC will be transferred into SOMCO. As of August 2015, the details of Somco were still unknown to the mining sector and the public.

Recent trends in the iron and steel industries can be seen in **Graph 4** above and **Graph 5** below. What is most instructive about these graphs is that, while iron ore production and exports have been experiencing an upward trend, domestic steel consumption and domestic steel production have stagnated. While overall crude steel production in the RSA has been experiencing a downward trend over the past decade, as illustrated in **Graph 5** below, there were developments in 2014 surrounding the steel industry that suggested there could be an increase in

annual production on the horizon. Most significantly, Chinese owned Hebei Iron and Steel announced in late 2014 its plans to build a plant in the RSA that will have an annual production capacity of 5 million metric tons of steel, with the bulk of production being dedicated to structural steel. Through the terms of the agreement, Hebei will take a 51% stake in a joint venture with the IDC of the RSA and the China-Africa Development Fund to build what would be China's biggest overseas steel mill.<sup>xxiv</sup>

**Graph 5.**



This graph was created using data sourced from the SA Iron and Steel Institute

Despite the prospect of new

production capacity coming online as a result of the Hebei deal, the South African iron and steel industry found itself in dire straights in 2015. This situation stemmed from depressed prices associated with an oversupplied world steel market and further compounded by stiff competition presented in the form of cheap Chinese imports. In 2009, 7% of South Africa's steel was imported, but by 2015 this figure had risen to 30%, with the majority of those imports being from China.<sup>xxv</sup> By June of 2015, the South African steel industry appeared to be on the verge of collapse. In July of 2015, ArcelorMittal announced that it was considering closing its century-old Vereeniging steel works. In addition, Evraz Highveld Steel, the RSA's second largest producer, which is already undergoing a business rescue due to running out of operating capital, announced it was laying-off half of its workforce, over 1000 employees temporarily or possibly permanently.<sup>xxvi</sup> The crisis is resonating throughout the iron and steel industry in the RSA, with downstream producers also having to make hard choices. For example, Trident Steel laid off 700 workers and Macsteel has proposed the layoff of 600 employees.

In August 2015, in response to the ensuing crisis, the Government joined forces with the steel industry and trade unions to form an emergency task force to address the dire situation. At stake is over 190,000 jobs associated with the iron and steel industry and the impending closure of the bulk of steel producers operating in South Africa.<sup>xxvii</sup>

The non-Governmental stakeholders that comprised the task force were; United Association of South Africa, the Metal and Electrical Workers Unions of the RSA, ArcelorMittal the RSA (AM the RSA), the Steel and Engineering Industries Federation of Southern Africa (Seifsa), National Union of Metalworkers of the RSA(Numsa), Evraz Highveld Steel, Cape Gate, the Scaw Metals Group, Macsteel Coil Processing and Solidarity.<sup>xxviii</sup>

The core demands the group made in their appeal to the Government included:

- Immediate trade remedies for steel (10-15% Tariff on steel imports)
- Urgent roll-out of Government's infrastructure programs (to stimulate consumption of domestically produced steel)
- Transparency of current state-owned enterprises' capital programs (force enterprises to buy domestic steel products)
- Monitoring of imports (look for imports against which dumping cases can be levied)
- Banning of steel scrap exports (guarantees supply to domestic industry at lower price)
- Fair pricing for steel versus Import Price Parity (**See IPP and Competitiveness Above**)

The Government was represented by the Trade and Industry Minister, Economic Development Minister, and senior Government officials from public enterprises, trade and industry, transport, and the National Treasury. The leadership of Transnet was also in attendance. Thus far the Government has agreed to sign off on the implementation of import duties at an initial rate of 10%. Furthermore, ArcelorMittal agreed to join the Government in investigating anti-dumping measures.

## Key Conclusions

The RSA iron and steel industry enjoyed relative success and growth from its inception in the beginning of the 20<sup>th</sup> century until the world economic crisis of 2008. Its initial successes appear to stem from several factors, including domestic availability of coking coal and iron ore, targeted Governmental intervention, and the existence of a domestic market for iron and steel. It is important

to note that in recent history the RSA has had to import coking coal as its remaining reserves of coking coal are undeveloped.

Governmental intervention was a defining factor in the development of the South African iron and steel industry from very early on. This intervention came in the form of Government incentives, protectionist tariffs, and through the passage of The Iron and Steel Industry Act in 1928, which established Iscor. However, without the existence of a robust domestic market it is unlikely that the the RSA iron and steel industry would have flourished as it did. The demands of the mining industry helped to provide a stable domestic market for steel, while the natural protection provided by the RSA's distance from international steel producers was initially an added advantage that became less significant over time as transport costs fell. While this natural protection and reliance upon the domestic/regional markets helped to establish the industry and sustained it for many decades, it did not prepare the RSA to compete in the global market place. The industry was structured and grew with the main objective of providing steel to the domestic and regional markets. As the steel market became more globalized and the RSA had to compete with imports, it became evident that the industry was not competitive enough.

A major feature of the 1980's that had a huge impact on the future of the South African iron and steel was the political and economic climate that led to the privatization of Iscor in 1989. While the National party was pushing for privatization, many viewed the actions of the Government with skepticism. The increasingly influential ANC party believed that the best course of action for the betterment of Africans was the exact opposite of this policy of privatization; the ANC was pushing for greater nationalization in all sectors. With the ANC coming to power in 1994, plans to privatize state assets further were halted, with Iscor being one of the few Government assets to be fully privatized. The privatization of Iscor has continued to be viewed by the ANC as detrimental to the interests of South Africans because it allowed strategic assets, such as steel production and the Shishen iron ore mine, to fall into the hands of foreign interests, thus exposing downstream industries reliant on associated inputs to price gouging. This issue was so extreme that by 2007 the Government and the IDC began exploring the possibility of starting another state owned steel producer to counter the practice of IPP through direct competition with AcellorMittal RSA (formerly Iscor).

By 2009, the Government recognized that the economic path of the past two decades was not in the RSA's best interest and thus came the creation of the New Growth Path (NGP). The policy of increased nationalization was made the official economic policy though the creation of the NGP. However, not much has been accomplished legislatively and there has not been any significant measurable positive impact in terms of economic growth, diversification, or increase in iron ore beneficiation activities stemming from the NGP framework. The economic situation of the the RSA iron and steel industry is so bad that, as of August 2015, all sectors of the ore to steel value chain, from mining to finished products, were experiencing moderate to heavy layoffs.

As of August 2015, the future of South African iron and steel industry appear bleak, at least in its current incarnation. While the Government, industry, and labor are acting in chorus to avert a mid to long-term crisis in the industry, it appears that over the short-term the industry will suffer with initial estimates of closures and layoff amounting to 10,000 jobs and could balloon to over 50,000 before the situation stabilizes. The last quarter of 2015 into the first two quarters of 2016 will likely be a defining period for the long-term structure of the South African iron and steel industry.

The South African steel industry faces significant challenges that make the growth prospects in this step of the value chain very challenging. Specifically, the RSA steel producers have an overcapacity of more than

50% relative to domestic demand. The steel industry faces high labor costs relative to low cost global competitors, as well as the high cost of some imported inputs, such as coking coal. Furthermore, the RSA faces geographic disadvantages, meaning that the cost of transporting steel from the inland production facilities to the coast and then by sea to the relevant export destination are likely to make South African steel uncompetitive in the relevant export destination. On top of rising energy costs, the RSA's steel mills are located inland necessitating that steel exports be transported via rail to ports, and thus incur high logistics costs on inland freight. In addition, South Africa is located further from the principal steel importing countries than other steel producing countries, such as South Korea, the Ukraine, and China. All of these factors combine to make further viable development of the RSA steel industry unlikely.

## Appendix

### *Existing enabling policy and regulatory framework*

Beneficiation is a widespread policy paradigm in South Africa. As such, it is rooted in various policies and frameworks as well as a number of strategic and orientation documents. Below is a review of the main laws that enable beneficiation in South Africa.

Name	Year	Summary
Scrap Iron Act	1910	An agreement between Usco and the government of South Africa, with Usco being granted the preferential right to purchase scrap iron from the railroad at a set price for specified period of time (16 years) under the Scrap Iron Act 1910 (See <b>Appendix 1</b> ). The agreement also including a guaranteed purchase for all finished materials if the government deemed them of sufficient quality
Tariff Act	1925	Established tariffs ranging from 20 to 25 % on steel imports.
The Iron and Steel Industry Act No. 11	1928	This bill aimed to address the issue of scarce private capital for investment available for the development of the iron and steel industry by establishing a statutory parastatal organization to provide not only inexpensive steel (by reducing imports) but also to create job opportunities. The act made available to the Iscor Board a total capital sum of 5.5 million ZAR, equivalent to 839 million USD/2015
Income Tax Act	1962	Act 58 is on R&D Tax Incentives, including but not limited to beneficiation.
Mineral and Petroleum Resources Development Act	2002	Minister is empowered to prescribe beneficiation levels.  (Section 26, Section 23(2))
Precious Metals Act	2005	Provisions of PMA ensure that priority will be given to those applicants whose beneficiation processes will be at the last stage of the mineral beneficiation value chain or will have a positive impact on the beneficiators in the last stage of the mineral value chain, since presents the highest concentration prospects of creation of decent job. (Section 6)  It also empowers the minister to decide on the export of unwrought material according to the applicant's facilitation of access for local beneficiation. (Section 12)
The Broad-Based Socio-Economic Empowerment Charter for the Mining Industry, i.e. Mining Charter	2010	Encourages downstream beneficiation: "provision for mining companies to offset up to 11% of their ownership requirements against the value of their levels of beneficiation"
South African Council for Natural Scientific Professions Act	2011	Act 16 is on R&D Tax Incentives, including but not limited to beneficiation.

## Bibliography

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- <sup>i</sup> Scott, Peter. "The Iron and Steel Industry of South Africa." *Geographical Association* 36.3 (1951): 137-49. Web.
- <sup>ii</sup> Richards, C. S. *The Iron and Steel Industry in South Africa*. Johannesburg: Witwatersrand UP, 1940. Print.
- <sup>iii</sup> Penderson, Jay P. *International Directory of Company Histories*. Vol. 57. S.l.: St. James, 2004. Print.
- <sup>iv</sup> Schneider, Geoffrey E. "The Development of the Manufacturing Sector in South Africa." *Journal of Economic Issues* 34.2 (n.d.): 413-24. Association for Evolutionary Economics, June 2000. Web. 11 Aug. 2015.
- <sup>v</sup> Meyer, F. "The Development Of The Iron And Steel Industry In South Africa." *The South African Journal of Economics South African J Economics* 20.2 (1952): 101-12. Web.
- <sup>vi</sup> Feinstein, C. H. *An Economic History of South Africa: Conquest, Discrimination, and Development*. New York: Cambridge UP, 2005. Print. Pg. 121
- <sup>vii</sup> Richards, C. S. *The Iron and Steel Industry in South Africa*. Johannesburg: Witwatersrand UP, 1940. Print.
- <sup>viii</sup> Richards, C. S. *The Iron and Steel Industry in South Africa*. Johannesburg: Witwatersrand UP, 1940. Print.
- <sup>ix</sup> "The History of ArcelorMittal South Africa." *History of ArcelorMittal*. ArcelorMittal, n.d. Web. 25 Aug. 2015.
- <sup>x</sup> "The History of ArcelorMittal South Africa." *History of ArcelorMittal*. ArcelorMittal, n.d. Web. 25 Aug. 2015.
- <sup>xi</sup> Scott, Peter. "The Iron and Steel Industry of South Africa." *Geographical Association* 36.3 (1951): 137-49. Web. 10 Aug. 2015.
- <sup>xii</sup> "The History of ArcelorMittal South Africa." *History of ArcelorMittal*. ArcelorMittal, n.d. Web. 25 Aug. 2015.
- <sup>xiii</sup> "Out of the laager." *Economist* [London, England] 10 Feb. 1990: 85. *The Economist Historical Archive, 1843-2011*.
- <sup>xiv</sup> Bell, Terry. "More Iscor cutbacks loom in South Africa." *American Metal Market* 1 Sept. 1994: 3. *Business Insights: Essentials*. Web. 3 Nov. 2015.
- <sup>xv</sup> "S. African Iron, Steel Output Down." *Xinhua News Agency* 30 Apr. 1999: 1008119h0263. *Business Insights: Essentials*. Web. 3 Nov. 2015
- <sup>xvi</sup> "SOUTH AFRICA: ISCOR SEEKING STEEL PARTNER." *Metal Bulletin* 3 June 1999: 3. *Business Insights: Essentials*. Web. 3 Nov. 2015.
- <sup>xvii</sup> "Iscor's Six Business Units To Become Separate Companies." *Africa News Service* 22 Aug. 2000: 1008235u9924. *Business Insights: Essentials*. Web. 3 Nov. 2015.
- <sup>xviii</sup> "Anglo American 2005/2006." *AngloAmerican*. Anglo American, 1 Jan. 2006. Web. <[http://www.angloamerican.com/~media/Files/A/Anglo-American-PLC-V2/investors/a-reports/2006rep/fact\\_book\\_2005-06.pdf](http://www.angloamerican.com/~media/Files/A/Anglo-American-PLC-V2/investors/a-reports/2006rep/fact_book_2005-06.pdf)>. Pg. 89.
- <sup>xix</sup> Or, Kumba Iron. *SECTION 2 CREATING a Growing and Sustainable Iron and Steel Value Chain in South Africa* (n.d.): n. pag. *Kumba Iron Ore*. KIO. Pg. 43.
- <sup>xx</sup> *The New Growth Path: The Framework*. Pretoria: Department of Economic Development, 2010. The Republic of South Africa, Jan. 2010. Web.
- <sup>xxi</sup> Economic Development Department of South Africa, "The New Growth Path: Framework," (November 2011), p. 23.
- <sup>xxii</sup> Or, Kumba Iron. *SECTION 2 CREATING a Growing and Sustainable Iron and Steel Value Chain in South Africa* (n.d.): n. pag. *Kumba Iron Ore*. KIO. Pg. 21.
- <sup>xxiii</sup> *The New Growth Path: The Framework*. Pretoria: Department of Economic Development, 2010. The Republic of South Africa, Jan. 2010. Web.
- <sup>xxiv</sup> Wei Yap, Chuin-Wei. "China's Hebei Iron & Steel to Build Plant in South Africa." *WSJ*. Dow Jones & Company, Inc, 12 Sept. 2014. Web. 25 Aug. 2015.
- <sup>xxv</sup> Evans, Sarah. "Unlikely Alliance Could Save Steel Industry." *The M&G Online*. Mail & Guardian, 25 Aug. 2015. Web. 25 Aug. 2015
- <sup>xxvi</sup> Rensburg, Dewald Van. "South Africa's Steel Industry Is on the Ropes." *Fin24*. N.p., 26 July 2015. Web. 25 Aug. 2015.
- <sup>xxvii</sup> Evans, Sarah. "Unlikely Alliance Could Save Steel Industry." *The M&G Online*. Mail & Guardian, 25 Aug. 2015. Web. 25 Aug. 2015.
- <sup>xxviii</sup> Wakefield, Adam. "Steel Industry in Crisis Jim." *Fin24*. News24, 24 Aug. 2015. Web. 25 Aug. 2015.

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